Chapter 1 - Renewable Energy

Targets

LADWP will supply 55% renewable energy by 2025; 80% by 2036; and 100% by 2045

- o Baseline: 30% renewable energy in 2017
- Source: Los Angeles Department of Water and Power

Milestones and Initiatives

Release 100% Renewable Energy plan by 2020	Invest \$8 billion through 2022 to upgrade power system infrastructure and ensure power system reliability	End coal-based electricity in LA's fuel mix by 2025	Provide 100% clean power for the 2028 Olympic and Paralympic Games	Cancel plans to repower once-through cooling power plants and cut in-basin power generation by natural gas 38% by 2029
Engage 100% Renewable Energy Advisory Group on study inputs, and partner on public outreach	Make key upgrades to transmission and distribution systems, substations, and other equipment to enable renewable energy integration into the electricity grid	Assess opportunities for compressed air energy storage at Intermountain Power Plant Utilize transmission access from Intermountain Power Plant as a renewables hub, enabling over a gigawatt of renewable resources over the next 15 years.	Partner with local utilities and the LA2028 Olympic and Paralympic Organizing Committee to develop a clean energy plan	Release action plan for in-basin grid infrastructure investments

Increase cumulative MW by 2025, 2035, 2050, respectively of:

- Local solar to 900-1,500 MW, 1,500-1,800 MW, 1,950 MW
- Energy storage capacity to 1,654-1,750 MW, 3,000 MW, 4,000 MW
- o Demand response (DR) programs to 234 MW (2025) and 600 MW (2035)
 - Baseline: 360 MW of local solar, 1,276 MW energy storage as of January 2019, and 25 MW of demand response as of October 2018
 - Source: Los Angeles Department of Water and Power

Expand FiT, community solar, and increase cumulative MW		Launch residential thermostat DR program, and increase
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of local solar to 500 MW by 2021	MW by 2021	cumulative MW of DR to 96 MW by 2021
E Provide community solar programs that expand access to solar savings to low-income and renter households: 1) Solar rooftops and 2) Shared solar program E Launch a new Virtual Net Energy Metering pilot program for multifamily households to go solar and implement a feasibility study to scale up program Extend Feed-in Tariff (FiT) program and expand to include storage Create a standard plan for carport solar Require all newly built parking structures to have solar Maintain residential solar PV interconnection wait time to less than two weeks Seek opportunities for third-party clean energy service providers to leverage private property for distributed generation	Identify and prioritize solar and microgrid backup power projects at critical City-owned facilities Streamline permitting and interconnection processes for energy storage projects Pilot technology for dispatchable and customer-side storage	Deploy technology to automate the existing Commercial Demand Response Program Investigate bidirectional smart-grid technologies to prepare for large-scale adoption of electric vehicles (EVs) Implement communication network to enable using smart meters

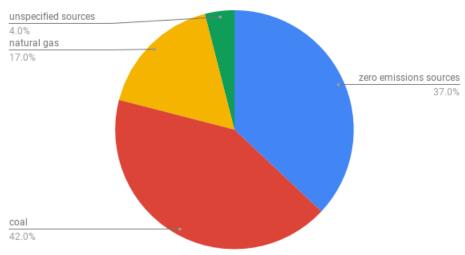
Benefits to Angelenos

Headline Statistics

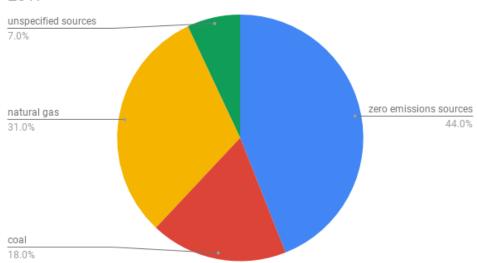
- 45,000 jobs by 2022 from infrastructure investments in a reliable clean grid
- 6,500 jobs per year, from local solar installations

Our Path to Zero Carbon





2017



Cleaner energy is already responsible for 86% of L.A.'s greenhouse gas reductions. Continuing to ramp up renewable energy is a key underlying driver to meeting our pLAn pathway to carbon neutral.

Chapter 2 - Local Water

Targets

Source 70% of L.A.'s water locally* and capture 150,000 acre ft/yr (AFY) of stormwater by 2035

- o Baseline: 15% of L.A.'s water sourced locally between July 2013 and June 2014
- o Source: City of Los Angeles Department of Water and Power
- *Locally sourced water, potable and non-potable, shall be composed of all local groundwater production, historical and future hardware-based conservation savings, centralized and distributed stormwater capture and recharge, and all recycled water produced in the City. When determining the percentage of local water, the amount of recycled water provided to jurisdictions outside the City of Los Angeles shall be included in both the numerator and denominator of the calculation.

Milestones & Initiatives

Increase stormwater capture to 75,000 AFY by 2021	Complete programmatic EIR for One Water L.A. 2040 plan by 2021	Replace 108 miles of water mainlines by 2021; and 530 by 2028	Reduce LADWP purchases of imported water by 50% by 2025
Leverage internal and external funding, including Measure W, and pursue additional financing opportunities	Update important infrastructure such as the Venice Pumping Plant to increase resilience to flooding, sea-level rise, and other climate change impacts	Achieve and sustain a replacement cycle consistent with expected 100 to 120-year life of water mains	Maintain the Water Cabinet to support implementation of key projects and policies Complete groundwater remediation facilities in the San Fernando Basin Develop plan to maximize use of West Coast and Central Basins Enhance L.A. Aqueduct system reliability and seismic resiliency

Recycle 100% of all wastewater for beneficial reuse* by 2035

Baseline: In FY17-18, 27% of wastewater was recycled

- o Source: City of Los Angeles Bureau of Sanitation
- *including but not limited to non-potable reuse, groundwater recharge, and supporting environmental and recreational uses such as those in the L.A. River

Milestones & Initiatives

Produce 1.5 MGD of recycled water at Hyperion Water Reclamation Plant (WRP) for use at LAWA and other local facilities by 2021	Recycle 17,000 AFY (15 MGD) of water at Donald C. Tillman WRP to recharge into our groundwater basins by 2025	Increase Non-Potable Reuse of recycled water by an additional 6,000 AFY by 2025; and an additional 8,000 AFY by 2035	Reduce annual sewer spills to fewer than 65 by 2025; and 60 by 2035
Pilot membrane reactor technology, to help clean recycled water	Test a suite of treatment options, including ozone	Maintain existing and connect new recycled water customers Convert 85% of public golf course acreage to recycled water	Identify and prioritize sewer infrastructure maintenance

Build at least 10 new multi-benefit stormwater capture projects by 2025; 100 by 2035; and 200 by 2050

o Baseline: 42 projects as of 2018

o Source: City of Los Angeles Bureau of Sanitation

Ensure that \$80M annually from Measure W supports multibenefit projects that improve water quality starting in 2020	Establish guidelines for incorporation of green infrastructure into street and sidewalk repair projects by 2021	Divert up to 25 MGD (~28,000 AFY) of urban runoff to improve local water quality by 2025
Increase number of green infrastructure sites such as green streets and alleys, bioswales, infiltration cutouts, permeable pavement, and street trees Evaluate incentives and existing policies to increase residential and commercial stormwater capture	[E] Incorporate stormwater capture capacity into six Complete Streets	Construct Low Flow Diversions to Hyperion WRP

Expand use of permeable pavement in large infrastructure projects (e.g., LAWA)	
Develop projects that prioritize nature-based solutions	

Reduce potable water use per capita by 22.5% by 2025; 25% by 2035; and maintain or reduce 2035 per capita water use through 2050

- Baseline: 133 total gallons per capita per day as of June 2014
- o Source: City of Los Angeles Department of Water and Power

Milestones & Initiatives

Expand existing programs and develop targeted campaigns by 2021 to increase awareness of L.A.'s water policy goals

Build upon the success of Save the Drop and develop additional water conservation campaigns

Continue benchmarking customer use and recognizing innovative water reduction initiatives

Improve data gathering to identify most effective programs

Expand top performing conservation incentive programs, including for landscape transformation and washing machines

Expand sub-metering and evaluate smart water meter technologies

Install or refurbish hydration stations at 200 sites, prioritizing municipally-owned buildings and public properties such as parks, by 2035

- o Baseline: Progress being tracked from baseline year 2019
- O Source: City of Los Angeles, multiple departments and bureaus

[E] Establish permanent drinking water access in Skid Row by 2021	[E] Provide drinking water access at 5 sites of highest need and install or retrofit hydration stations at municipal buildings by 2025
Retrofit or install permanent hydration stations	Identify priority hydration stations per council district for retrofit
	Prioritize large municipal buildings and LADWP customer service centers
	Develop strong community outreach and

education programs on tap water quality

Benefits to Angelenos

Headline Statistics

- 18,000 jobs, from building multibenefit stormwater projects by 2050
- 6,500 jobs, from transforming Hyperion Water Reclamation Plant by 2035
- Save 110,000 AFY, which represents the amount of water used by 330,000 households annually, by meeting our 2035 goal to reduce water use by 25%

Sourcing water locally uses less energy and makes our City's water supply more resilient to inevitable natural disasters and shocks. Purchasing imported water uses 3 to 4 times the energy of local water sources such as groundwater and recycled water. The L.A. Aqueduct is gravity-fed, producing hydroelectric energy as it moves water, making it carbon neutral.

Tracking the greenhouse gas footprint of our water portfolio is critical to reaching carbon neutrality. LADWP is actively developing national protocols to monitor greenhouse gas emissions related to water management, which will be used in The Climate Registry's reporting program for water/energy nexus, opening in May 2019.

Chapter 3 - Clean and Healthy Buildings

Targets

All new buildings will be net zero carbon by 2030; all buildings will be 100% net zero carbon by 2050

- o Baseline: Effectively 0% in 2019
- Source: Los Angeles Department of Water and Power, and Department of Building and Safety

Milestones & Initiatives

Design and implement policies by 2021 to decarbonize new buildings	Design and implement policies by 2021 to decarbonize existing buildings
Complete building electrification study and develop supporting programs for building electrification	Expand and improve access to financing Create incentives for electrification in existing energy.
Engage cities around the state, country, and	Create incentives for electrification in existing energy efficiency and solar incentive programs
globe on smart building policies	Engage building owners and tenants on benefits of building upgrades

Reduce building energy use per sq.ft. for all buildings types 22% by 2025; 34% by 2035; and 44% by 2050

- o Baseline: 68 mBTU/sqft in 2015
- o Source: U.S. Department of Energy city-specific data on building energy use intensities

Achieve and maintain +85% compliance with Existing Building Energy & Water Efficiency (EBEWE) program by 2021	Invest \$100 M in energy efficiency programs to renters and affordable housing customers by 2021	Use energy efficiency to deliver 15% of LA's projected electricity needs by 2020 and 30% by 2030
E Provide discounted energy benchmarking for affordable housing and non-profits with trainees from local colleges Operate a resource center to support implementation of EBEWE Analyze energy data to develop more targeted energy efficiency rebates	E Targeted outreach to renters and affordable housing customers for energy efficiency rebate opportunities	Increase awareness of incentives and smart building energy management systems Assess and report energy consumption from energy-water nexus Partner with local utilities on energy efficiency and net zero energy analysis of Olympic Venues

Benefits to Angelenos

Headline Statistics

LADWP Energy Efficiency programs will support:

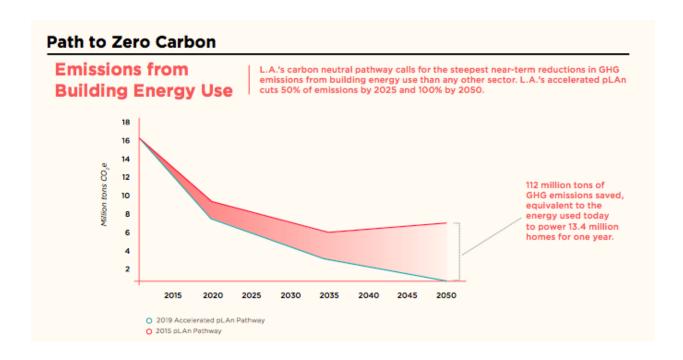
- 1,600 jobs annually, from energy efficiency programs
- \$65 million in savings annually for customers from energy efficiency

Zero carbon buildings by 2050 will reduce exposure to air pollution and prevent

- 190 premature deaths annually
- 74 respiratory and cardiovascular hospital admissions annually

...while supporting

- \$1.9 billion in savings annually from averted deaths and hospital admissions
- 175,000 jobs by 2050



Chapter 4 - Housing & Development

Targets

Cut the city's unsheltered population to functional zero by 2028

Baseline: 36,049 persons unsheltered in 2018 Source: Greater Los Angeles Homeless Count

Implement the Mayor's A Bridge Home program by building at least 1,500 beds across the city by 2021	Build 10,000 new permanent supportive housing units by 2026
 [E] Direct outreach, mental health, career, and addiction support services to nearby encampments Restore spaces that were previously encampment sites into safe, clean, public passageways [E] Expand unified homelessness response center to improve coordination of city and county services 	Implement Prop HHH Streamline the permitting process of permanent supportive housing

Increase cumulative new housing unit construction to 150,000 by 2025, and 275,000 units by 2035

Baseline: 12,394 units permitted in 2014.

Source: City of Los Angeles, Department of Building and Safety.

Build 100,000 new housing units by 2021

[E] Implement development reform initiatives such as streamlining and expediting the permitting process for all types of housing, including ADUs

Improve process predictability and provide for coordinated early review of development projects

Expand opportunities for incremental housing production that is compatible with existing neighborhoods, building on recent ADU policies

Expand opportunities for homeownership and other price-stable alternatives to renting across all income levels

Ensure 57% of new housing units are built within 1,500 feet of transit by 2025, and 75% by 2035

Baseline: 43% in 2014

Source: City of Los Angeles, Department of City Planning

Complete Transit Neighborhood Plans underway for Purple Line Extension and Orange Line by 2020	Complete Downtown Community Plan by 2021	Complete all 35 community plans by 2024
Develop regulatory tools and strategies to encourage transit ridership and focus growth in housing proximity to five new stations on the Orange Line Add seven new Purple Line stations to extend west from Downtown L.A. to UCLA	Expand zoning capacity to accommodate significant density, including capacity for 20% of the City's future housing needs within the Downtown area (1% of land area) Remove parking minimums	[E] Increase density at key transit nodes and near job centers through Community Plan Updates and Transit Oriented Communities incentives (E) Ensure housing developments adhere to Transit Oriented Communities guidelines for on-site affordable units Promote urban infill development to maximize new and existing transit investments Update parking regulations to allow for adaptive reuse of space, bike and car sharing infrastructure, and reduced parking requirements

Create or preserve 50,000 income-restricted affordable housing units by 2035 and increase stability for renters

Baseline: Progress being tracked from baseline year 2019

Source: City of Los Angeles, Housing and Community Investment Department

Enforce the Rent Stabilization Ordinance and further enhance tenant protections by 2021	[E] Build 15,000 units of affordable housing by 2021, leading to 45,000 by 2035
[E] Develop new programs and ordinances to prevent displacement of lower income Angelenos, communities of color, and persons living with disabilities	Leverage new development linkage fees to build affordable housing with equitable geographic distribution to address gentrification Factor the cost of production and minimum wage to ensure that costs per unit are affordable Revise the density bonus program to encourage more mixed-income, affordable development across the city Implement the recommendations in the City's recently adopted Assessment of Fair Housing

Develop and scale new loan products to encourage mixed-income development and the preservation of existing, naturally occurring affordable housing

Benefits to Angelenos

- 325,000 jobs, for new transit oriented housing construction by 2035
- 17x more ADU permit applications filed since 2017 as compared to the previous two years
- Over 9,000 ADU applications have been submitted to-date

Our Path to Zero Carbon

- By making our homes highly efficient and zero carbon, we will cut half of the emissions from L.A.'s buildings; this is accounted for in the Clean and Healthy Buildings chapter
- By building housing near transit, we are also helping Angelenos use public transportation and reduce emissions from vehicle use; this is accounted for in the Zero Emissions Vehicles chapter.

Chapter 5 - Mobility and Public Transit

Targets

Increase the percentage of all trips made by walking, biking, micro-mobility / matched rides or transit to at least 35% by 2025; 50% by 2035; and maintain at least 50% by 2050

- o Baseline: 14% of all trips made by non-car modes in 2015
- o Source: 2016 City of Los Angeles Travel Demand Forecasting Model

Launch a regionally coordinated advocacy campaign to encourage shared, sustainable mobility options by 2021	Increase L.A.'s average Walk Score to 75 by 2025	Support Metro with its implementati on of a congestion pricing pilot by 2025	Implement Vision Zero safety improveme nts by 2025	Improve travel times on L.A. County's bus network by 30 percent by 2028	Complete Measure M 28 by '28 projects by 2028	Ensure all City residents have access to high-quality mobility options within a 10-minute walk from home by 2028
Coordinate a working group of mobility partners to develop public engagement goals of the campaign	Update City standard plans for public works projects to integrate pedestrian -centric design into all applicable projects E Implement a Street Furniture program that reduces heat exposure, provides cool transit stops, and improves	Work with Metro on a congestion pricing study.	Inspect and repair 200 crosswalks on the High-Injury Network. Implement 50 Safe Routes to School safety plans Pilot sensoring and monitoring technology to increase pedestrian safety Enhance and maintain all bikeways on the High-Injury Network	Complete three Bus Rapid Transit projects Complete Metro's NextGen Bus Study Expand DASH service to ensure system achieves 15 minute weekday and 20 minute weekend frequency E Create four new DASH routes (Boyle Heights West, Pacoima, Sylmar, Canoga	Continue subway and light rail network expansion, including completion of the Regional Connector, Crenshaw/LA X, Airport Metro Connector, and Purple Line Extension projects Complete projects to enhance mobility through the San Fernando Valley, including Sepulveda and East San Fernando	Expand bike lane network by 20 lane-miles per year and increase bicycle-supportive infrastructure like public bicycle parking and repair stations E Support implementation of Metro's First/Last Mile plans for the Blue Line, Purple Line, and subsequent lines E Expand electric car sharing options, including

access to restrooms in high transit use areas E Implement Wilmington Avenue and Century Blvd. Great Streets Project E Identify	Park) E Execute a suite of bus and transit corridor improvement s, including accepting mobile payments and expanding all door boarding	transit corridor Launch Metro MicroTransit pilot project	BlueLA, to all Los Angeles neighborhoods in the top 10% of the CalEnviroScree n Expand LADOT MicroTransit operations
opportunitie s to implement cool corridors and other intervention s to improve pedestrian comfort on routes to high-volume transit stops and cooling spaces			

Reduce VMT per capita by at least 13% by 2025, 39% by 2035, and 45% by 2050

- o Baseline: 15 VMT per capita per day
- o Source: Southern California Association of Governments Transportation Demand Model

Adopt a Mobility First policy by 2021	Launch a user-friendly, searchable app mapping all curbside designations throughout the City by 2021	Expand Metro Bike Share to at least three new neighborhoods by 2021
Update the Transportation Demand Management (TDM) ordinance Develop and implement first / last mile infrastructure improvements around transit stations, including integration of existing and emerging mobility services (e.g. bikeshare, e-scooters, carshare, etc.) Update the City's transportation impact study guidelines and related tools,	Expand DOT Express Park Program to Venice, study feasibility for other locations Pilot new curbside regulations and parking zones to better integrate and help facilitate new mobility options	Deliver multi-modal Integrated Mobility Hubs with infrastructure for car share, shared rides, bike share, and dockless mobility services, starting in Downtown L.A. and Hollywood Double annual Metro Bike Share trips in Downtown L.A. and University Park

including a VMT calculator, to advance sustainable development	
Implement TDM strategies and other congestion easing measures in the WestSide Mobility Plan	

Ensure Los Angeles is prepared for Autonomous Vehicles (AV) by the 2028 Olympic and Paralympic Games

- Baseline: No baseline; progress tracked starting 2019
- o Source: Los Angeles Department of Transportation

Milestones & Initiatives

Use transportation data to ensure that new transit, app-enabled, and for-hire mobility options are equitably available across the City.	Ensure all autonomous vehicles (AVs) used for sharing services will be electric by 2021
Create design guidelines for AV and zero- emissions mobility infrastructure in the public right of way	Develop a suite of incentives for electric autonomous shared vehicles, and electric car and rideshare overall
	Develop software applications and APIs to optimize autonomous vehicle performance and safety, and ensure that AV deployments in Los Angeles are consistent with the City's core values of safety, equity, and livability

Benefits to Angelenos

Headline Statistics

- 788,000 jobs in the region, from Measure M over the next 40 years
- 5 million vehicle miles traveled reduced per day County-wide, once Measure M is complete
- 15% cut in time stuck in traffic by the time of Measure M completion

When Angelenos switch from driving to include 15 minutes of walking or biking on their commute to and from work, they will experience

- 23% reduced risk of heart disease and stroke
- 15% reduced risk of type 2 diabetes

Our Path To Zero Carbon

Building out the transit system in L.A. will enable Angelenos to use public transit and other modes to get where they need to go. From mode shift alone, the pLAn Refresh pathway saves 720,000 tons of greenhouse gas emissions in the transportation sector - 2% of the overall savings shown in the Zero Emissions Vehicles chapter. This is equivalent to removing 152,000 cars from the road for one year.

Chapter 6 - Zero Emission Vehicles

Targets

Increase the percentage of zero emission vehicles in the city to 25% by 2025, 80% by 2035, and 100% by 2050

o Baseline: 1.4% of vehicles as of September 2018

o Source: CA Department of Motor Vehicles

Distribute 1,000 used EV rebates, 11,500 Level 2 EV charger rebates and 75 DC fast charger rebates by 2021	Develop a zero emission roadmap for LAX by 2021	Install 10,000 publicly available EV chargers by 2022; 25,000 by 2025	100% of urban delivery vehicles are zero emission by 2035	E 100% Zero Emission school buses in Los Angeles by 2028	Develop Fossil Fuel Free zone roadmap by 2021; implemente d 2030	Electrify 10% of taxi fleet by 2022; and 100% of taxis by 2028
Enhance EV outreach efforts, including dealership engagement . E Support vehicle trade-in events and cash-to-clunkers programs	Release a RFQ to gauge industry capacity to deliver zero emission Fly Away service	Streamline permitting and interconnecti on processes for EV charger installations Update building code to expand EV charging requirement s to meet anticipated need. Build 20 Fast Charging Plazas throughout the city. Expand curbside EV charger program to include	Create a suite of innovative street and curb usage regulations to encourage electrificatio n of urban goods movement Develop an electric freight and commercial vehicle billing rate.	Execute a MOU between DWP and LAUSD to ensure availability of charger incentive funds Pilot a vehicle to grid school bus program	Identify CBO and businesses partners Host neighborhoo d visioning sessions Use incentives to eliminate food truck idling	Install network of dedicated chargers for electrified taxis around the city Launch an incentive for EV taxis

private sector

Electrify 100% of Metro and LADOT buses by 2030*

- o Baseline: 4.6% LA Metro (zero in service) 2018; 8.2% LADOT 2018 (four in service)
- *(includes buses on order)
- o Source: LA Metro, Los Angeles Department of Transportation

Milestones & Initiatives

Electrify LA Metro's Orange and Silver Lines by 2021	E Introduce 155 new electric DASH buses into fleet by 2021	Electrify 100% of paratransit shuttle buses by 2026
Develop an electric transit billing rate. Install charging infrastructure at four Metro bus facilities	Deploy charging infrastructure at two additional LADOT bus yards. Open a shared downtown bus facility for LADOT, Foothill and AVTA Deploy innovative, resilient, charging solutions at bus depots. Standardize charging practices across L.A. County with help from the LA Regional Electric Bus Working Group	Complete near term pilot of one electric paratransit shuttle and one electric coach bus

Reduce port-related GHG emissions by 80% below 1990 values, by 2050

o Baseline: 1,511,975 metric tons of CO2e

o Source: Port of Los Angeles

100% zero emissions cargo handling equipment by 2030	100% zero emissions on- road drayage trucks by 2035	Expand the use of Shore Power (AMP) or other emissions capturing technologies to 100% of ships by 2028 as part of a suite of emissions reductions programs for ocean going vessels
Incorporate sustainable practices in tenant lease agreements [E] Support development of cleaner rail transport, including investigating the feasibility of rail electrification	Deploy 50-100 zero- emissions trucks in a clean truck pilot [E] Implement an updated Clean Truck Program	Develop technology and pilot at- berth controls for liquid bulk vessels

(CTP) with prioritization on zero emission trucks	
Execute a long term electrification-focused MOU between the Port and LADWP	

Benefits to Angelenos

Headline Statistics

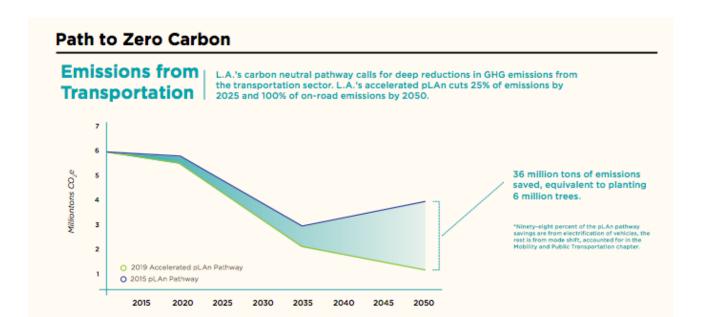
- 1,500 jobs, from growing the publicly available EV charging infrastructure in L.A. by 2025
- 10,000 jobs, from electrifying 100% of buses in the L.A. region by 2028

Electrifying all vehicles by 2050 will reduce air pollution and prevent

- 978 premature deaths annually
- 400 respiratory and cardiovascular hospital admissions annually

...while saving

• \$9.5 billion annually from averted deaths and hospital admissions



Chapter 7 - Industrial Emissions and Air Quality Monitoring

Targets

We will have zero days where air pollution reaches unhealthy levels by 2025

- Baseline: There were 90 days in 2018 where 8-hour ozone readings exceeded national standards for Los Angeles County
- o Source: California Air Resources Board

Milestones & Initiatives

Deploy community air quality monitoring networks by 2021	Expand the City's efforts to improve air quality from industrial sources by 2021
E Pilot a GPS enabled smart inhaler program for evaluating air quality near the Port	E Implement and expand the Clean Up Green Up program to include one or more additional neighborhoods with high CalEnviroScreen scores
E Launch an air quality monitoring pilot on City street lamps within our Clean Up Green Up neighborhoods and in the neighborhood of Watts	E Enhance health and safety protection provisions for oil and gas production facilities
E Conduct fence-line air quality monitoring at LA's refineries and oil and gas extraction sites	E Evaluate the feasibility of a no drill health and safety buffer zone between oil and gas production facilities and communities
E Deploy community air quality monitoring networks under AB 617 in Boyle Heights and Wilmington by 2019	Train City Sanitation inspectors to identify air quality violations and notify local authorities
E Identify and analyze toxic air contaminants emitted from oil and gas production facilities	Create working group to prioritize and execute local air quality mitigation steps in highly impacted neighborhoods
E Identify air quality hotspots in impacted communities from goods movement, ports, and refineries	

Reduce industrial emissions* by 38% by 2035; 82% by 2050

- *industrial emissions include combustion of on-site fossil fuels used to run operations for petroleum refineries and other manufacturing and industrial facilities
- Baseline: 7.2 million metric tons CO₂e
- Source: 2015 community-wide GHG inventory used as baseline for carbon pathway analysis

Create an annual oil well and facilities compliance inspection program by 2021, prioritizing communities in closest proximity to	Support the implementation of refinery and heavy duty industry emission reduction plans	[E] Reduce oil production by 40%, below 2013 levels, by 2021
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facilities		
Improve tracking for flaring emissions and create transparent database of air quality impacts Evaluate waste to energy technologies and conversion technology pilot projects to replace flares at oil drill sites; i.e. Micro Turbines	Support leak detection and repair initiatives, and explore new emissions capture technologies at refineries E Implement Best Available Retrofit Control Technology (BARCT)	Develop an inter-agency Task Force to update City processes for inspections and permitting of oil and gas extraction facilities E Coordinate with LA County to develop a sunset strategy for oil and gas production operations county-wide Reduce fugitive and vented emissions of methane from new and existing oil and gas facilities through improved monitoring

Reduce methane leak emissions* by 54% by 2035 and 80% by 2050

- *methane leak emissions are included in industrial emissions
- o Baseline 0.09 million metric tons
- Source: 2015 community-wide GHG inventory used as baseline for carbon pathway analysis

Eliminate backlog of leaks within the natural gas supply chain by 2021	Develop an auditing and tracking program for oil and gas wells throughout the City by 2021	Improve tracking for emissions from imported oil and gas by 2021
Update all pipeline franchise agreements to require leak detection, abatement best practices, and strong environmental and health and safety protections Develop an audit of methane hotspot sensors installed in the City Ensure a pathway to closure is established for the Aliso Canyon storage facility Support the evaluation and testing of methane detection monitors as part of the AQ-SPEC program	Adopt best available software to track oil and gas operations in City Evaluate and prioritize risk of orphan and abandoned oil wells Ensure idle wells are properly identified and remediated	Monitor and track imports and exports of crude oil and gasoline at the Port of Los Angeles Improve tracking of consumption emissions associated with imported oil Quantify out-of-state GHG emissions from methane leakage during the production, processing, and transportation of imported natural gas

Benefits to Angelenos

Headline Statistics

Reducing industrial GHG emissions 82% by 2050 will reduce exposure to air pollution and prevent:

- 484 premature deaths annually
- 190 respiratory and cardiovascular hospital admissions

...while saving

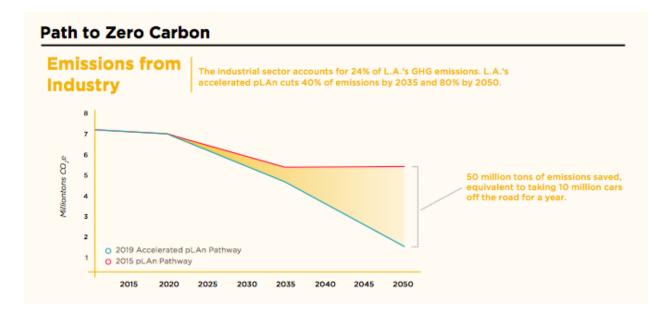
• \$4.7 billion per year from averted deaths and hospital admissions

Achieving our air quality goals by 2025 will reduce exposure to air pollution and prevent:

- 600 premature deaths annually
- 400 respiratory and cardiovascular hospital admissions annually

...while saving

• \$9.5 billion annually from averted deaths and hospital admissions



Chapter 8 - Waste and Resource Recovery

Targets

Increase landfill diversion rate to 90% by 2025; 95% by 2035; and 100% by 2050

- o 76.4% diversion rate achieved at the end of 2011.
- o Source: Los Angeles Bureau of Sanitation Zero Waste Progress Report, UCLA 2013

Pass legislation by 2021 requiring take-out foodware be made with compostable material* *material must be compostable in municipal solid waste processing facilities within 60 days	Cut illegal dumping by one-third by 2021	Reduce the number of street grids rated 'unclean' by one-third by 2021	Increase construction and demolition waste recycling requirements to at least 80% by 2021	Pilot a sector- specific recycling program by 2021	Conduct a waste characterizati on and diversion study by 2021 (and again every 4 years)
Engage with restaurants and food service providers to understand barriers to implementation	Expand the City's bulky item pick-up program	Launch CleanStat 2.0, a city-wide effort to clean our neighborhoods [E] Engage individuals with high barriers to employment with opportunities in street cleanup through LA:RISE	Pilot use of 100% recycled aggregate Build up municipal hot mix asphalt capacity to pave all city streets using 50% recycled asphalt Explore additional strategies to increase construction and demolition waste recycling	Engage with film studios to explore strategies for reducing waste generated from film production Engage the textile and apparel industry to develop and implement zero waste manufacturing strategies and divert unwanted garments from landfills Investigate options for addressing non-recyclable plastics, including secondary markets	Continue to optimize recycLA services Update the Solid Waste Integrated Resources Plan Diversify recycling markets to ensure recycling remains a viable landfill diversion strategy Analyze diversion strategies for other organic waste including food soiled paper, carpets, palm fronds, organic textiles, etc.

Reduce municipal solid waste generation per capita by at least 15% by 2030, including phasing out single-use plastics* by 2028

- 17.85 pounds of waste generated per capita per day in 2011.
- Source: Los Angeles Bureau of Sanitation Zero Waste Progress Report, UCLA 2013
- *Including but not limited to plastic straws, plastic utensils, plastic take-out containers, and expanded polystyrene

Milestones & Initiatives

Ban expanded polystyrene* citywide by 2021 *expanded polystyrene includes but is not limited to foodware, packaging materials, and coolers	Design and implement a zero waste policy for City-sponsored and permitted events by 2021	Launch an educational awareness campaign on source reduction by 2021
Engage with key stakeholders, including food service providers, on alternatives to expanded polystyrene products Assess best practices from other cities and integrate relevant lessons learned into policy	Develop vendor guidelines, emphasizing waste minimization and surplus edible food rescue	[E] Improve recycling and waste reduction education in public housing Utilize libraries as a platform to promote waste reduction, including launching zero waste, reuse, or upcycling workshops Promote public recognition programs for organizations with sustainable food waste management practices Reduce contamination in green and blue bins and increase use of existing waste programs through public education

Eliminate organic waste* going to landfill by 2028

- Baseline: An estimated 722,725 tons of organic waste was sent to landfill in 2011
- Source: City of Los Angeles Bureau of Sanitation Zero Waste Progress Report, UCLA
 2013; Sunshine Canyon Landfill Comprehensive Waste Characterization Study, 2016
- *Organic waste refers to food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste

Establish food scraps drop-off locations at all city farmers markets by 2021	Launch city-wide residential food scraps collection by 2021	Recover and distribute at least 30% of discarded edible food by 2025
Partner with local organizations to ensure food scraps are composted locally first	Expand the City's anaerobic digestion capacity Develop a composting master plan to expand community and	Ensure all food businesses have food rescue options available through their recycLA waste hauling service
	regional composting infrastructure	Standardize food donation options for businesses through

	recycLA
	Identify and engage major point sources of food waste throughout the city on food recovery programs and organics recycling

Increase proportion of waste products and recyclables productively reused and/or repurposed within L.A. County to at least 25% by 2025; and 50% by 2035

No baseline. Tracking this target will begin with 2021 waste characterization study.

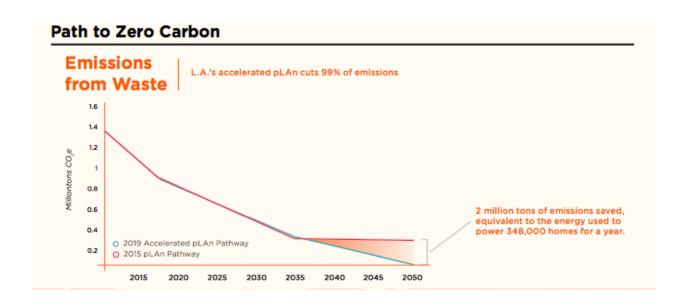
Milestones & Initiatives

Pilot an industrial materials exchange program by 2021	Modernize the City's environmentally preferable purchasing policy by 2021 to include waste reduction strategies	Establish extended producer responsibility (EPR) policies by 2025	Develop a resource recovery hub pilot by 2025
Conduct a study to assess the potential for reusable material exchange across L.A.'s various industries	Assess best practices from other cities around product packaging, vendor take-back, and recycled content requirements	Lead cities in California to engage in advocacy for EPR Develop EPR guidelines to encourage retailers and manufacturers to recycle goods, take back materials, and/or reduce packaging Work with electric vehicle OEMs, battery storage companies, and cleantech industry to identify new markets for used EV batteries and ensure proper recycling at end of life	Support startup companies utilizing secondary material through the Los Angeles Cleantech Incubator Promote use of incentives in L.A.'s Recycling Market Development Zone and explore additional incentives for recycled- content product manufacturers

Benefits to Angelenos

Headline Statistics

- 1,700 jobs, from city-wide residential organics collection by 2021
- Twice as many jobs, from composting instead of landfilling one ton of organics



Chapter 9 - Food Systems

Targets

Ensure all low-income Angelenos live within $\frac{1}{2}$ mile of fresh food by 2035

 Baseline: 414,384 low-income residents without grocery retail within 1/2 mile in 2010
 Source: United States Department of Agriculture Economic Research Service, Food Research Atlas

Milestones & Initiatives

Increase food recovery beyond pre- packaged food at LAX by 2021	Establish a healthy food cart program by 2021 and support early-stage good food entrepreneurs	Design and implement 5 Good Food Zones* in the city by 2025 *geographic areas of the city with a high concentration of low-income households lacking access to affordable, fresh, and healthy food	Achieve 100% enrollment of eligible households in CalFresh/ SNAP by 2025
[E] Identify food recovery partners and ensure recovered food feeds the most in need Develop cold storage infrastructure to scale food recovery efforts	[E] Work with the County to expand opportunities and remove regulatory barriers for home-based entrepreneurs [E] Provide technical assistance to healthy food merchants and entrepreneurs in low- income communities [E] Develop a permitting program for sidewalk vending	[E] Expand Neighborhood Market Conversion program and promote investment in new grocery locations via FreshWorks fund [E] Increase food access opportunities through grocery stores, farmers markets, urban farms, and food reuse in underserved areas [E] Create new retail siting policies and update Community Plans to encourage the siting of grocery retail in underserved areas [E] Offer wellness and healthy eating programs including a summer lunch program for kids	E] Work with the County to baseline and monitor CalFresh/ SNAP participation in the city [E] Promote enrollment in supplemental nutrition programs [E] Work with the County to expand EBT access at farmers markets county-wide

Increase the number of urban agriculture sites in L.A. by at least 25% by 2025; and 50% by 2035

Baseline: 494 urban agriculture sites as of June 2013
 Source: CultivateLA: An Assessment of Urban Agriculture in Los Angeles County,
 University of California Cooperative Extension - Los Angeles

Milestones & Initiatives

Leverage public property for urban agriculture by increasing the number of edible gardens in city parks and public libraries by 50% by 2021	Double participation in the Urban Agriculture Incentive Zone program by 2021
Continue monitoring urban agriculture sites in L.A. using the best available data	Monitor and increase the number of sites in the Urban Agriculture Incentive Zone program
[E] Identify opportunities for edible gardens in City's public housing Streamline permitting for gardens on public land	Streamline permitting for gardens on private land Establish new zoning categories for innovative food production
[E] Expand urban agriculture in the City's Promise Zones	Encourage urban farming through City's compost giveaway and distribution program
Convert appropriate parkways and open lots to agriculture and gardening	

Prepare for natural disasters by increasing the resiliency of our food systems infrastructure

o No baseline. Tracking this target will begin with 2021 food system resilience study.

Milestones & Initiatives

Commission a study by 2021 to strengthen our infrastructure for a more resilient local food system	Pilot 2 healthy soil projects by 2021
[E] Build up infrastructure of smaller corner stores to sustain neighborhoods in the event of an emergency	Explore incentives for regenerative agricultural practices, including water conservation Develop a healthy soil strategy for the city to
Encourage and prioritize resilient building improvements for food distribution suppliers in Los Angeles	support urban agriculture, address carbon sequestration, and increase water capture
Increase City departments' level of compliance in implementation of the Good Food Purchasing Guidelines	Amplify community education campaigns on the benefits of healthy soils, biodiversity, and regenerative agriculture
Encourage other public and private food institutions to adopt the Good Food Purchasing Policy	
Identify opportunities to increase capacity for distribution points, such as food banks, schools, and hospitals, to serve people after a disaster	

Benefits to Angelenos

Headline Statistics

- \$1.2 billion of additional economic activity in L.A. County each year from full participation in CalFresh (California Food Policy Advocates report, 2016)
- 4,500 Angelenos could be fed for an entire year with the 3,000 tons of food recovered by recycLA to date

Our Path to Zero Carbon

Building up our local food supply so that fruits and vegetables travel fewer miles to get to our plates; and keeping food from going to landfills through edible food recovery and food scrap composting will decrease the carbon footprint of our food system.

Chapter 10 - Urban Ecosystems and Resilience

Targets

Increase tree canopy in areas of greatest need by at least 50% by 2028 to grow a more equitable urban forest that provides cooling, public health, habitat, energy savings, and other benefits

- Baseline: Average across City is 20%; to be updated upon completion of City-wide tree inventory
- o Source: MacPherson, 2008

Milestones & Initiatives

Plant and maintain at least 90,000 trees citywide by 2021	Update and align City policies and procedures to grow and protect public and private trees by 2025	Complete citywide tree inventory by 2021; and Urban Forest Management Plan by 2025
Support the planting of 20,000 trees annually on residential and public properties Identify and leverage state and federal funding to plant, preserve, and maintain an additional 4,000 trees annually Expand tree maintenance green jobs training programs and create pipelines to City employment Establish an Adopt-a-Canopy program to expand support for city trees	Review and revise public right-of-way standards to ensure optimum street tree canopy Pilot opportunities to expand flexibility in tree procurement, including contract-grow nurseries Explore incentivization programs to encourage private tree-trimming businesses to prioritize tree health, public safety, and shade	Update the Protected Tree and Shrub Ordinance to preserve, maintain, and grow protected tree species E Identify low canopy corridors and prioritize planting trees in those areas Ensure General Plan update includes supportive policies and guidance on preserving, maintaining, and increasing tree canopy

Complete or initiate restoration identified in the federal L.A. River Ecosystem Restoration Plan ('ARBOR' Plan) by 2035

- o Baseline: Progress being tracked from baseline year 2019
- o Source: ARBOR Plan, City of Los Angeles and US Army Corps of Engineers

Create a partnership to develop an 100-acre L.A. River open space by 2021	Initiate work on L.A. River reaches 6, 7, and 8 by 2021
Allow initial public use of Taylor Yard / G2	Secure support from state and federal partners

Create a fully connected LARiverWay public access system that includes 32 miles of bike paths and trails that prioritize native habitat, stormwater capture, and shading by 2028

- o Baseline:13.3 miles of Los Angeles River public access as of June 2014
- o Source: City of Los Angeles Bureau of Engineering

Milestones & Initiatives

Increase access by completing 3 active transportation bridges by 2021	Complete at least 1 additional mile of LARiverWay bike paths and trails by 2021; and 10 by 2025	Support at least 8 partnership opportunities on L.A. Riveradjacent public and private properties by 2025
Build the Taylor Yard, North Atwater, and Red Car bridges	Plan and build out LARiverWay bike path and trails supportive infrastructure	Build L.A. River Headworks Park project, including habitat restoration and public access to the river Support terracing along the L.A. River by planning and effectuating public access through City properties Support completion of the "Bending the River Back into the City" Project (Water Wheel) Support and expand compatible L.A. River recreational opportunities

Reduce urban/rural temperature differential by at least 1.7 degrees by 2025; and 3 degrees by 2035

- o Baseline: 5.58°F * in 2012
- o Source: Yale-NUIST Center on Atmospheric Environment, using NASA MODIS data
- *Annual-mean daytime ΔT

Pilot 6 cool neighborhoods in vulnerable communities by 2021; and 10 by 2025	All new roofs must be cool roofs by 2020; and install 13,000 additional cool roofs by 2021	Install cool pavement material on 250 lane miles of City streets by 2028, prioritizing neighborhoods with the most severe heat island effect
Design neighborhood pilots to include a mix of cool roofs, cool pavements, and urban greening	Update cool roof ordinance to cover all roof types and increase cooling characteristics requirements	Update "cool surface" regulations to require that at least 50% of all non-roof (e.g., hardscape) surfaces around new
E Incorporate additional cooling features such as innovative shade designs, water features,	E Develop spatial map of	buildings meet certain criteria to reduce urban heat island effect
and cooling centers at parks	existing cool roofs and heat risk	Promote cooling strategies and

E Ensure every high-volume transit stop has access to cooling features E Upgrade cooling centers to meet the needs of elderly and persons with disabilities E Expand communications on types of cooling resources and available cooling spaces, including through NotifyLA for homeless populations, to increase usage and deployment Include air temperature monitoring in air quality sensor deployments	to develop a strategy to add cool roofs in areas of highest heat vulnerability Expand marketing around cool roof incentives program to accelerate retrofits	"softening" of hardscape in alleys and parking lots Study cool streets and determine maximum potential of cooling strategies to reduce urban heat impacts
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Achieve and maintain 'no-net loss' of native biodiversity by 2035

- o Baseline: Will be established in 2019 Biodiversity index
- o Source: City of Los Angeles Bureau of Sanitation

Set biodiversity targets and pilot L.A.'s first wildlife corridor by 2021	Update a citywide Integrated Pest Management plan by 2021	Develop a citywide strategy for protection and enhancement of native biodiversity by 2025	In partnership with L.A. County, get L.A. into the top 3 cities / counties in the City Nature Challenge by 2025
Complete first biodiversity assessment using L.Aspecific index Build up City's biodiversity program to improve internal practices Monitor biodiversity and natural areas Update watershed protection policies to include enhanced stream protection	Prioritize reducing pesticide and rodenticide use, including the use of non-toxic pest management options wherever possible Develop guidance and training for City maintenance staff on natural area and non-toxic pest management	Preserve and expand connectivity and access to natural habitats Collect data and map urban biodiversity to identify key areas to enhance or protect Protect and restore sensitive habitats Increase the number of native and pollinator-friendly gardens and natural areas in public spaces	Host annual bioblitz using community science apps such as iNaturalist or eBird Increase observations of L.A.'s biodiversity indicator species list Develop strategies to increase community science app users, especially in data-poor areas

	Incorporate the L.A. River flow study in management decisions	
	around the river	

Ensure proportion of Angelenos living within 1/2 mile of a park or open space is at least 65% by 2025; 75% by 2035; and 100% by 2050

- O Baseline: 56% of residents live within ½ mile of a park or open space as of 2018
- Source: Trust for Public Land ParkScore® Index

Milestones & Initiatives

Add at least 8 parks by 2021; and 30 parks by 2025	Establish 25 joint-use parks by 2025 in underserved communities
[E] Partner with government agencies and NGOs to expand the 50 Parks L.A. Initiative	E Partner with LAUSD to formalize an agreement to establish joint use parks
E Adopt park equity investment criteria to help prioritize park placement	E Increase the use of these spaces by providing programming and activities
Complete 3 new L.A. River parks	
Assess and track park acreage per 1,000 residents	
Leverage Measure A, Measure W, and Prop 68 to support groundwater recharge, stormwater management, and green infrastructure	

Benefits to Angelenos

Headline Statistics

- 2,000 jobs, from planting 90,000 trees by 2021
- 500 jobs annually, from installing cool roofs

Our Path to Zero Carbon

Healthy ecosystems can sequester carbon dioxide from the air and store it as carbon in biomass and soil. L.A. will begin to study the carbon sequestration potential of healthy ecosystems and pilot methods for including carbon dioxide emissions/sequestration from trees in its greenhouse gas inventory.

Chapter 11 - Environmental Justice

Targets

Improve the raw scores of CalEnviroScreen indicators of L.A. communities in the top 10% by an average of 25% by 2025 and 50% by 2035

- o Baseline: CalEnviroScreen 3.0 indicators raw scores for top 10% in LA
- Source: CalEnviroScreen 3.0, California Office of Environmental Health Hazard Assessment, 2019

Dramatically reduce exposure to health-harming pollutants in our most disadvantaged communities by 2025	Invest in housing, services, and infrastructure upgrades that will improve the quality of life for sensitive populations including children, the homeless and elders by 2025	Implement cost- saving programs to alleviate financial burdens in our most vulnerable communities by 2025	Improve access to community programs in low-income areas by 2025
- Provide drinking water access at five sites in areas of highest need and install or retrofit hydration stations at municipal buildings - Establish permanent drinking water access in Skid Row - Incorporate stormwater capture capacity into six Complete Streets - Develop programs to provide assistance to customers to address on-site plumbing issues, including old drinking water pipes Mobility and Public	Housing and Development - Direct outreach, mental health, career, and addiction support services to nearby encampments - Expand unified homelessness response center to improve coordination of city and county services Food Systems - Offer wellness and healthy eating programs including a summer lunch program for kids Urban Ecosystems and Resilience - Partner with LAUSD to formalize	- Launch a new Virtual Net Energy Metering pilot program for multifamily households to go solar and implement a feasibility study to scale up program - Provide community solar programs that expand access to solar savings to low income and renter households: 1) Solar rooftops and 2) Shared solar program Clean and Healthy Buildings	Housing and Development - Implement development reform initiatives such as streamlining and expediting the permitting process for all types of housing, including ADUs - Increase density at key transit nodes and near job centers through Community Plan Updates and Transit Oriented Communities incentives - Ensure housing developments adhere to Transit Oriented Communities guidelines for onsite affordable units
Transit	an agreement to	- Targeted outreach	Mobility and Public

- Implement
 Wilmington Avenue
 Great Streets
 Project
- Create four new DASH routes (Boyle Heights West, Pacoima, Sylmar, Canoga Park)
- Support implementation of Metro's First/Last Mile plans for the Blue Line, Purple Line, and subsequent lines
- Expand electric car sharing options, including BlueLA, to all Los Angeles neighborhoods in the top 10% of the CalEnviro Screen

Industrial Emissions and Air Quality Monitoring

- Implement and expand the Clean Up Green Up program to include one or more additional neighborhoods with high CalEnviroScreen scores
- Work with the County of Los Angeles to plan and implement the new lead hazard remediation program ensuring resources are allocated to L.A.'s fair share of

- establish joint use parks in schools
- Increase the use of joint-use park spaces by providing programming and activities
- Develop spatial map of existing cool roofs and heat risk to develop a strategy to add cool roofs in areas of highest heat vulnerability
- Incorporate
 additional cooling
 features such as
 innovative shade
 design, water
 features, and
 cooling centers at
 parks
- Upgrade cooling centers to better meet the needs of elderly and persons with disabilities
- Expand
 communications on
 types of cooling
 resources and
 available cooling
 spaces, including
 through NotifyLA for
 homeless
 populations, to
 increase usage and
 deployment

Lead by Example

- Expand
opportunities for
youth arts
education in areas
of high need

- to renters and affordable housing customers for energy efficiency rebate opportunities
- Provide discounted energy benchmarking for affordable housing and non-profits with trainees from local colleges
- Identify and communicate energy conservation potential for multifamily properties through the City's Gateway to Green Program

Housing and Development

- Provide
 environmental
 assistance to
 prepare brownfield
 projects for
 redevelopment
 focusing on
 disadvantaged
 communities
- Develop new programs and ordinances to prevent displacement of low income residents, communities of color, and persons living with disabilities
 - Leverage new development linkage fees to build affordable housing with equitable geographic

Transit

- Execute a suite of bus and transit corridor improvements, including accepting mobile payments and expanding all door boarding
- Identify
 opportunities to
 implement cool
 corridors and other
 interventions to
 improve
 pedestrian
 comfort on routes
 to high-volume
 transit stops and
 cooling spaces
- Implement a Street Furniture program that reduces heat exposure, provides cool transit stops, and improves access to restrooms in high transit use areas

Waste and Resource Recovery

 Improve on-site recycling and waste reduction education in public housing

Food Systems

- Work with the County to expand opportunities and remove regulatory barriers for homebased entrepreneurs
- Provide technical assistance to healthy food

affected units

Urban Ecosystems and Resilience

- Identify low canopy corridors and prioritize planting trees in those areas
- Adopt park equity investment criteria to help prioritize park placement
 - Partner with government agencies and NGOs to expand the 50 Parks L.A. Initiative

Lead by Example

- Create a Climate Emergency Council that engages impacted communities in implementing the pLAn
- Appoint a Climate Emergency Advocate
- Engage Community
 Assemblies to
 identify priorities
 and help assess
 community level
 impact of climate
 programs

- distribution to address gentrification
- Implement the recommendatio ns in the City's recently adopted Assessment of Fair Housing

Waste and Resource Recovery

 Engage individuals with high barriers to employment on opportunities in street cleanup through LA:RISE

Food Systems

 Work with the County to expand EBT access at farmers markets county-wide

Prosperity and Green Jobs

- Offer Green Jobs courses at L.A. Trade Technical College for 250 students and place them in internships
- Prepare workers with retraining for jobs that will be automated
- Add sustainability curriculum to WorkSource Development Center training

- merchants and entrepreneurs in low-income communities
- Develop a permitting program for sidewalk vending
- Expand
 Neighborhood
 Market Conversion
 program and
 promote investment
 in new grocery
 locations via
 FreshWorks fund
- Increase food access opportunities through grocery stores, farmer's markets, urban farms and food reuse in underserved areas
- Create new retail siting policies and update Community Plans to encourage the siting of grocery retail in underserved areas
- Work with the County to baseline and monitor CalFresh / SNAP participation in the city
- Promote enrollment in supplemental nutrition programs
- Identify opportunities to increase edible gardens in City's public housing
- Expand urban

- Offer two free years of community college for eligible high school graduates, exposing students to hundreds of courses in sustainability
- Launch the
 Advanced
 Prototyping Center
 Fellowship at the
 Los Angeles
 Cleantech
 Incubator (LACI) to
 place fifty people in
 jobs per cohort
- Collaborate with stakeholders on just transition for workers into the green jobs of the future
- Ensure contracts for City construction projects provide opportunities for local hiring and disadvantaged worker employment opportunities
- Support the Los
 Angeles Cleantech
 Incubator to create
 an inclusive green
 economy by taking
 on applicants and
 helping them gain
 access to capital
 and resources,
 providing office
 space and
 executive coaching

- agriculture in the City's Promise Zones
- Build up infrastructure of smaller corner stores to sustain neighborhoods in the event of an emergency

- Launch the Founders Business Accelerator at the Los Angeles Cleantech Incubator to help entrepreneurs in low-income communities grow their businesses and increase their impact
Lead by Example - Complete the first phase of the Green Meadows grid resiliency microgrid project

Reduce the number of annual childhood asthma-related emergency room visits in L.A.'s most contaminated neighborhoods to less than 14 per 1000 children by 2025 and 8 per 1000 children by 2035

- Baseline: The neighborhoods with the most childhood asthma-related emergency room visits -- Central City and Harbor Gateway -- averaged 24 out of 1,000 children in 2010
- Source: Plan for a Healthy Los Angeles. Data from 2010 California Office of Statewide Health Planning and Development

Increase the percentage of zero emission vehicles in the city to 25% by 2025, 80% by 2035, and 100% by 2050	Deploy air quality tracking in high scoring CalEnviroScreen neighborhoods by 2021	Create an annual oil well and facilities compliance inspection program by 2021, prioritizing communities in closest proximity to facilities
100% Zero Emission school buses in Los Angeles	Pilot a GPS enabled smart inhaler program for evaluating air quality near the Port	Enhance health and safety protection provisions for oil and gas production facilities
Support vehicle trade-in events and cash-to-clunkers programs Introduce 155 new electric DASH buses into fleet	Launch air quality monitoring pilots on City street lamps within our Clean Up Green Up neighborhoods and in the neighborhood of Watts	Evaluate the feasibility of a no drill health and safety buffer zone between oil and gas production facilities and communities
Develop a suite of emissions reductions programs for ocean going vessels at the Port of Los Angeles	Deploy community air quality monitoring networks under AB 617 in Boyle Heights and Wilmington	Coordinate with LA County to develop a sunset strategy for oil and gas production operations county-wide

Support development of cleaner rail transport, including investigating the feasibility of rail electrification

Implement an updated Clean Truck Program (CTP) with prioritization on zero emission trucks

Ensure that municipally deployed EV chargers are distributed equitably around the city, with a focus on underserved and disadvantaged neighborhoods

Conduct fence-line air quality monitoring at LA's refineries and oil and gas extraction sites

Identify and analyze toxic air contaminants emitted from oil and gas production facilities

Identify air quality hotspots in impacted communities from the goods movement, ports and refineries

Implement Best Available Retrofit Control Technology (BARCT) to reduce air pollution in impacted communities

Benefits to Angelenos

Headline Statistics

- 1,650 premature deaths avoided per year, by our pLAn
- 660 averted respiratory and cardiovascular hospital admissions per year, by our pLAn
- \$16 billion saved per year from avoided deaths and healthcare costs, by our pLAn

Our Path to Zero Carbon

L.A.'s Transformative Climate Communities are demonstrating how community revitalization can have a positive impact on the climate, too. The TCC projects in Watts and Pacoima-Sun Valley are expected to reduce 69,041 tons of CO2e and 32,476 tons of CO2e, respectively, equivalent to taking 21,554 cars off the road.

Partner Initiatives

Transforming Our Neighborhoods

Through the state's TCC-program, three LA neighborhoods – Watts, Pacoima-Sun Valley, and South L.A. – are channeling local knowledge and experience into solving local problems. After receiving awards totaling over \$58 million by the state and leveraging over \$200 million from the City and partners, each community is building upon decades of grassroots organizing and engagement to support the priorities of their residents and deliver meaningful change. In addition to the exciting projects around clean energy and urban greening, each project will incorporate workforce development plans that include training in a number of sectors – renewable energy technologies, low carbon transportation technologies, energy efficiency, waste diversion, healthy soils – and fight back against displacement. These community-driven projects protect our planet while ensuring our vibrant neighborhoods are safe, clean, and resilient for generations to come.

Watts Rising

(implementation grant, \$32 million)

- 81-unit affordable apartment community in Jordan Downs
- 135 affordable multiple family housing units
- Electrified DASH Watts service with 10 new battery-electric buses and 5 fast chargers
- 15 electric vehicles for carsharing
- Rooftop solar panels on 52 single-family residences
- 300 single-family home energy efficiency retrofits
- 5.2 miles of bike lanes, 25 pedestrian improvements, an arts and cultural walking path, and two safe passage programs for students
- 0.5 miles of pedestrian/cyclist mobility improvements
- 1,050 native plants and 5,400 square feet of pervious rain gardens
- More than 3,300 trees
- Expanded community garden at Markham Middle School, with 100 shade trees
- 2 urban pocket parks
- 50 urban mini-farms
- 250,000 pounds of food rescued and redistributed to Watts residents
- Green street and pedestrian improvements
- 1/2 mile green/complete street from Grape Street to Alameda Street
- Over 35,000 square feet of grocery store offering fresh fruits and vegetables

Green Together: Northeast Valley (implementation grant, \$23 million)

- 2.4 miles of pedestrian improvements
- Electrify DASH Pacoima service with 14 new battery-electric buses and 7 fast chargers
- 4 mobility hubs with solar-powered EV charging infrastructure
- 5 air quality monitoring nodes at key locations
- 175 solar electric energy systems installed on single-family homes
- 8 MW of Feed-In Tariffs (FiT) and/or net energy metering (NEM) projects
- 6.8-acre park renovated to include 95 new trees, a stormwater bioswale, and walking paths
- 2,090 trees planted
- 35 cool roofs installed
- David M. Gonzales Park resiliency center built to include solar, energy storage and EV chargers
- 0.36 acres of alley space transformed into a green alley
- New light rail transit service design along Van Nuys Blvd. and San Fernando Rd.
- 1.6-acre underground infiltration gallery installed in Fernangeles Park to capture stormwater
- 95 acre-feet per year of stormwater runoff captured

South LA Climate Commons Collaborative (planning grant, \$200,000)

- Developing strategies on housing affordability, park access, workforce development, and community health
- Offering a community-led vision for ongoing land use and transportation planning efforts including the Slauson Corridor Transit Neighborhood Plan and Metro's Rail-to-River Active Transportation Corridor
- Aligning and leveraging funding through City's General Plan, including Community Plans, focused on sustainability and economic revitalization

• Will pursue a future TCC implementation grant

Chapter 12 - Prosperity and Green Jobs

Targets

Create 300,000 green jobs by 2035, leading to 400,000 by 2050 (SDG 8, 11)

o Baseline: 1,575,900 jobs in the City of LA in 2014

Source: UCLA Anderson School

Milestones & Initiatives

Open green career pathways through the following programs by 2021	Create 100,000 green jobs by 2025	
Connect Hire LA's Youth participants with green job opportunities	Create a Jobs Cabinet to convene City departments to identify job growth opportunities	
Collaborate with Los Angeles Community College District to develop pipelines for employment in green construction industry professional services	Work with the private sector to grow green jobs within their companies	
[E] Offer Green Jobs courses at L.A. Trade Technical College for 250 students and place	Create private sector partnerships to establish apprenticeship programs	
them in internships Work with local trade and technical schools to create an EV workforce pipeline	[E] Collaborate with stakeholders on just transition for workers into the green jobs of the future	
Establish workforce training programs for landscape managers on the installation and care of native plants	[E] Ensure contracts for City construction projects provide opportunities for local hiring and disadvantaged worker employment	
[E] Prepare workers with retraining for jobs that will be automated	Track the number of people trained and placed through the WorkSource Development Centers	
[E] Add sustainability curriculum to WorkSource Development Center training	Expand targeted local hire positions to more City Departments	
[E] Offer two free years of community college for eligible high school graduates, exposing students to hundreds of courses in sustainability		
[E] Launch the Advanced Prototyping Center Fellowship at the Los Angeles Cleantech Incubator (LACI) to place fifty people in jobs per cohort		

Increase private sector green investment in L.A. by \$750 million by 2025, and \$2 billion by 2035

- o Baseline: \$100,000,000 in private sector investment
- Source: Los Angeles Cleantech Incubator cumulative green investment, 2017

Increase the total number of businesses certified and recertified through the Green Business Certification Program to 1,000 by 2025

Maintain top ranking for offering the most sustainable business incentives of any city within L.A. County by 2025

Expand deployment of clean technologies through City departments

Expand existing programs that generate demand for clean technologies such as feed-in tariff, energy efficiency funds, and the Port Technology Enhancement Program

Work with Proprietary departments to develop, pilot, and prefer L.A. made clean technologies

Work with the Clean Energy Smart Manufacturing Innovation Institute (CESMII) at UCLA to develop a smart manufacturing tool set to assist LA manufacturers in cutting their energy and water usage

[E] Support the Los Angeles Cleantech Incubator to create an inclusive green economy by taking on applicants and helping them gain access to capital and resources, providing office space and executive coaching

Attract green industries through tax incentives, low-cost loan and grant programs, and regulatory guidance through the L.A. Industry Initiative

Leverage opportunities with the State's Recycling Market Development Zone program which includes Industrial Development Bonds, Small Business Fund, Community Financial Resource Center loan program, technical assistance from Valley Economic Development Corporations, and Empowerment Zone incentives

Eliminate unemployment rate gap between City of LA and LA County.

- Baseline: 0.6% in November 2014. Unemployment rate in LA County was 7.9%, LA City was 8.5%.
- Source: U.S. Bureau of Labor Statistics

Milestones & Initiatives

Continue to rank in CNBC's top five cities to start a small business by 2025

[E] Launch the Founders Business Accelerator at the Los Angeles Cleantech Incubator to help entrepreneurs in low-income communities grow their businesses and increase their impact

Provide free business consulting through nine BusinessSource Centers on topics such as financial analysis, marketing, business planning, one-on-one management consulting, and loan consultations

Provide microloans for eligible businesses from \$5,000-\$50,000

Provide free business services for employers through sixteen WorkSource Centers including customized employee recruitment, free job listings, candidate screening, and on-the-job training

Promote Bureau of Contract Administration's Contractor Assistance Seminars that provide free training for bidding on public works construction projects

Benefits to Angelenos

Headline Statistics

- 2,252 premature deaths avoided per year, by our pLAn
- 910 averted respiratory and cardiovascular hospital admissions per year, by our pLAn
- \$22 billion saved per year from avoided deaths and healthcare costs, by our pLAn

Zero carbon buildings by 2050 will reduce exposure to air pollution and prevent

- 190 premature deaths annually
- 74 respiratory and cardiovascular hospital admissions annually

...while supporting

- \$1.9 billion in savings annually from averted deaths and hospital admissions
- 175,000 jobs by 2050

Our Path to Zero Carbon

L.A.'s Transformative Climate Communities are demonstrating how community revitalization can have a positive impact on the climate, too. The TCC projects in Watts and Pacoima-Sun Valley are expected to reduce 69,041 tons of CO2e and 32,476 tons of CO2e, respectively, equivalent to taking 21,554 cars off the road.

Chapter 13 - Lead By Example

Targets

Reduce municipal greenhouse gas emissions 55% by 2025 and 65% by 2035 from 2008 baseline levels, reaching carbon neutral by 2045*

- O Baseline: 16.8 million metric tons CO2e in 2008
- o Source: City of Los Angeles Municipal Greenhouse Gas Emissions Inventory

Reduce municipal energy use 18% by 2025, 35% by 2035, and 44% by 2050*

- *These are 50% higher than the original targets in the 2015 pLAn when adjusted to the new baseline. The original targets also did not include 2050.
- o Baseline: 3,476,841 mmBtu in 2015
- o Source: City of Los Angeles Municipal Greenhouse Gas Emissions Inventory

Milestones & Initiatives

Install 15 MW of solar at the Port by 2021	Install 3 MW of solar at City facilities by 2021	Complete LED retrofits at all City buildings subject to the Existing Building Energy and Water Efficiency Ordinance by 2028
Support resilience through integrating solar into the microgrid at Pasha Terminal	E Complete the first phase of the Green Meadows grid resiliency microgrid project Deploy a resilient battery/solar project at the LAPD Motor Transportation Division to power EV fleet Complete the LA Zoo - LADWP solar resiliency project Ensure at least 1MW of solar on LA Convention Center Expansion Examine on-site renewable energy at LADWP facilities and pursue smart metering and energy management solutions	Complete LED retrofit for terminals at the Port and Harbor Department buildings Complete LED retrofits at recreation centers, gymnasiums, and the LA Convention Center Control Central Library lighting with advanced energy building management software Finish converting all street lights to LEDs and explore autodimming technology

Reduce municipal water use by at least 25% by 2025, 30% by 2035

- o Baseline: 16,099 Acre-feet used from July 2012- June 2013
- o Source: LA Department of Water and Power

Expand municipal and proprietary buildings retrofits through the following actions by 2021	Expand low water use landscaping by 2025
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Install smart faucets in 45 library facilities

Wash city vehicles only at facilities with 100% recirculated water

Implement the water conservation measures in the LA Zoo Vision Plan

Continue publishing water use at each city-owned building

Improve information available through 311, including city rebate programs

Install sustainable, low water use landscaping at 25 branch libraries

Convert road medians and publicly-owned parkway strips to low- or no-water use landscaping

Implement sustainable landscaping projects on public housing and other multi family facilities

Update the landscape ordinance to include greater water efficiency measures

Incorporate additional low water use and permeable materials into standard parkway design guidelines

Exempt solar panel installations and droughttolerant landscaping proposals with no increase in hardscape from Historic Preservation Overlay Zone review processes

Continue watering at City facilities on a reduced schedule of two times per week

Lead on zero waste and achieve a zero waste City Hall by 2025

Transition to paperless personnel files by 2021	Adopt and implement a sustainable technology policy across all City departments by 2021	Ensure all City facilities are equipped with appropriate recycling, including recycling for machining material and organics collection, by 2021; and proprietary facilities by 2024
Acquire database for all city departments to upload and store personnel files	Expand the OurCycleLA program to 15,000 wifi devices to decrease the City's e-waste and improve online connectivity for low-income Angelenos Develop systems and infrastructure to improve recycling rates of specialty waste streams, particularly e-waste Purchase new or refurbished equipment with less packaging through the Environmentally Preferred Products Purchasing Program	Update city procurement and contracting requirements to include specifications on surplus food recovery, styrofoam, and single-use plastic Expand the Zoo's food sharing program to divert at least 180 tons of food waste Transition to compostable foodware at the Convention Center

	Monitor recycling at the Piper Technical facility	
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Convert all city fleet vehicles to zero emission where technically feasible by 2028 Milestones & Initiatives

Deploy additional EV charging stations by 2021	Lead locally and nationally on EV adoption through the following actions by 2021	All vehicle procurement will follow a "zero emission first" policy for City fleets by 2021	Ensure that 100% of medium duty trash and recycling trucks are zero emission by 2028
Install 400 EV chargers at City buildings and City parks Install EV chargers at all libraries Install 500 additional streetlight EV chargers [E] Ensure that municipally deployed EV chargers are distributed equitably around the city, with a focus on underserved and disadvantaged neighborhoods Develop a fleet EV infrastructure master plan	Continue national leadership role to promote municipal electrification by adding medium and heavy duty vehicles to the Climate Mayors EV Purchasing Collaborative Help lead the Transportation Electrification Partnership (TEP), convened by the Los Angeles Cleantech Incubator, to ensure regional coordination on goals and efforts Release EV RFI for electric offroad equipment Commission a study on converting city pool vehicles to ride share and other alternatives Revise city employee commuter benefits to encourage mode shift and carpooling	Ensure that 100% of the City's new light duty purchases are electric Ensure that 100% of new vehicles for the Meals on Wheels program are electric	Release solicitation for medium duty trash trucks

Ensure all new municipally owned buildings and major renovations will be all-electric, effective immediately

Implement GHG performance standard for materials procurement for purchasing by City departments by 2021	Implement 5 new net zero energy projects at city facilities by 2028
Update the City's Environmentally Preferred Products Policy to include additional construction materials and the GHG performance standard, such as the Buy Clean California Act Further identify embedded carbon emissions in the City's supply chain through Departmental participation in the Carbon Disclosure Project supply chain program	Complete Los Angeles Street Civic Building Pilot passive house certification and monitor energy savings in city facilities less than 7,500 square feet Electrify 100% of Recreation and Parks yard maintenance equipment

Reach 2 million Angelenos through outreach, education, and training programs by 2025

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Launch pLAn	[E] Create a	Develop and	Convene 10	Increase
engagement	Climate	implement a	City-wide	education and
campaign in	Emergency	sustainabilit	forums through	training through
2019	Council that	y training for	the Department	City science,
	engages	on-boarding	of	arts and cultural
	impacted	all new city	Neighborhood	programming
	communitie	employees	Empowerment,	offered by
	s in	by 2020 and	inviting	departments by
	implementin	current	participation	2025
	g City	employees	from 96	
	sustainabilit	by 2021	Neighborhood	
	y targets in		Councils on	
	2019		critical	
			sustainability	
			issues by 2021	

Benefits to Angelenos

Headline Statistics

- 500 jobs, from municipal renewable energy and EV projects by 2028
- Zeroing out municipal greenhouse gas emissions is equivalent to taking 3.5 million cars off the road for one year